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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,592	10/31/2003	John A. Baumann	BING-1-1027	1654

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EXAMINER

EDMONDSON, LYNNE RENEE

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/698,592

Applicant(s)

BAUMANN ET AL.

Examiner

Lynne Edmondson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) 23-67 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/11/05, 1/3/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-22 in the reply filed on 11/25/05 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5 and 18-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Gentry (USPN 5971247, IDS).

Gentry teaches a clamp for securing a work piece comprising a support arranged to at least partially surround a circumference defining a work area on the work piece, the support having a first movable end and at least one friction reducing element attached to the first end and disposed between the support and the work piece, the friction reducing element applying a clamping pressure to the surface of the work. The clamp is capable of surrounding the work area and a friction stir tool (figures 1a and

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1b). The friction-reducing element comprises hydraulics for maintaining a specific pressure (col 3 line 41 – col 4 line 36).

4. Claims 1-7, 9, 11 and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Vierstraete (USPN 4304512, IDS).

Vierstraete teaches a clamp for securing a work piece comprising a support arranged to at least partially surround a circumference defining a work area on the work piece, the support having a first movable end and at least one friction reducing element attached to the first end and disposed between the support and the work piece, the friction reducing element applying a clamping pressure to the surface of the work. The clamp is capable of surrounding the work area and a friction stir tool (figures 1 and 2). The friction-reducing element comprises a self-lubricating element (col 2 lines 34-41) and ball or roller bearings (col 2 lines 55 – 67 and col 3 line 13 – col 4 line 9). Hydraulics or pneumatics are employed for maintaining a specific pressure (col 3 lines 40-48).

5. Claims 1-5 and 9-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Darner et al. (USPN 2665362).

Darner teaches a clamp for securing a work piece comprising a support arranged to at least partially surround a circumference defining a work area on the work piece, the support having a first movable end and at least one friction reducing element attached to the first end and disposed between the support and the work piece, the

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friction reducing element applying a clamping pressure to the surface of the work. The clamp is capable of surrounding the work area and a friction stir tool (figure 9). The friction-reducing element comprises a self-lubricating, steel ball and roller bearings held by fluid pressure (col 6 line 40 – col 7 line 30 and col 16 line 66 – col 17 line 27) for maintaining a specific pressure (col 15 lines 12-75). The rollers are pivotable (col 21 lines 35-65).

6. Claims 1-7 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Rudolph (DE 3404555, IDS).

Rudolph teaches a clamp for securing a work piece comprising a support arranged to at least partially surround a circumference defining a work area on the work piece, the support having a first movable end and at least one friction reducing element attached to the first end and disposed between the support and the work piece, the friction reducing element applying a clamping pressure to the surface of the work and including a lubricant (cutting fluid). The clamp is capable of surrounding the work area and applying pressure in a controlled manner (figures 1 and 3 and abstract).

7. Claims 1-10, 20 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Alber (US 2004/0120783 A1).

Alber teaches a clamp for securing a work piece comprising a support arranged to at least partially surround a circumference defining a work area on the work piece, the support having a first movable end and at least one friction reducing element

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attached to the first end and disposed between the support and the work piece, the friction reducing element applying a clamping pressure to the surface of the work. The clamp is capable of surrounding the work area and a friction stir tool (figure 3). The friction reducing element comprises a self-lubricating, MoS₂ material and may comprise PTFE (paragraphs 20-23). A mechanism is provided to move the support and maintain a specific pressure (paragraph 57).

8. Claims 1-5, 14 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Aota et al. (US 2002/0162876 A1, IDS).

Aota teaches a clamp for securing a work piece comprising a support arranged to at least partially surround a circumference defining a work area on the work piece, the support having a first movable end and at least one friction reducing element attached to the first end and disposed between the support and the work piece, the friction reducing element applying a clamping pressure to the surface of the work. The clamp is capable of surrounding the work area and a friction stir tool. The friction-reducing element comprises roller bearings for maintaining a specific pressure (figure 8A and paragraphs 76-83). Although it is noted that the reference teaches a friction stir tool within the circumference, it is noted that the claims do not teach the tool.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Haane (DE 3304582 A1, pivotable rollers/castors, roller

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bearings), Meron et al. (USPM 6536755 B2, ball bearings), Flanders (USPN 2187227, pivotable rollers/castors), Melzer (USPN 5655859, pivotable roller bearings), Miller et al. (USPN 3604612, roller bearings), Conover et al. (USPN 5865430, hydraulic clamp) and Narita et al. (US 2004/0134971 A1, rollers, fsw).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (571) 272-1172. The examiner can normally be reached on Monday through Thursday from 6:30 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lynne Edmondson
Primary Examiner
Art Unit 1725

LE
2/15/04

LRE